

AMENDED CLAIMS

1. A filtering device for a narrow-band terminal in a private installation connected to an access network carrying narrow-band services (analogue or ISDN) and broad-band services (xDSL or HomePNA), characterised in that it comprises low-pass filtering means (F) and isolation means (I) comprising Zener diodes in opposite orientations and disposed in series, enabling the device to have a high input impedance isolating it from the installation when the narrow-band terminal is in the on-hook state whilst allowing the ringing signal to pass.

2. A filtering device according to Claim 1, characterised in that the filtering means include one or more low-pass filters.

3. A filtering device according to any one of the preceding claims, characterised in that the filtering means include a filter of the LC type and in that the isolation means are placed at the inputs of the said filter.

4. A filtering device according to any one of Claims 1 to 3, characterised in that the filtering means (F) include a filter of the LC type and in that the isolation means (I) are placed between the inductors and the capacitor of the said filter.

5. A filtering device according to any one of the preceding claims, characterised in that the filtering and isolation means are functionally distinct.

6. A filtering device according to any one of Claims 1 to 6, characterised in that the filtering and isolation means are functionally interlinked.

7. A filtering device according to Claim 6, characterised in that low-pass filter LC includes at least one relay controlling the bringing into service of the capacitor in the filter.

8. A filtering device according to Claim 6, characterised in that the filtering means include a second-order LC filter (F), and in that the isolation means (I) are placed on each side of the capacitor (C1) of the said filter and in that it also comprises at least two other capacitors (C') each being placed in parallel to the assembly formed by the isolation means and the capacitor of the filter.

9. A filtering device according to any one of the preceding claims, characterised in that the filtering means include a second-order LC filter (Fe) of high impedance, placed at the input of the device on the private installation side and a second filter (Fc) coupled to the first, whose activation depends directly on the isolation means (I).

10. A filtering device according to Claim 9, characterised in that the second filter includes a capacitor (C1) in parallel to the capacitor (C2) of the LC filter placed in the isolation means or after the said means.

11. A filtering device according to Claims 9 and 10, characterised in that the isolation means (I) are placed after the capacitor (C2) of the LC filter, and

in that the capacitor of the second filter (C1) is placed in the isolation device (I) and in that the other two capacitors (C') are each placed in parallel to the assembly formed by the isolation means and the capacitor (C1) of the second filter.

12. A private installation comprising at least one narrow-band terminal and at least one broad-band terminal, connected to an access network carrying narrow-band services and broad-band services, characterised in that it includes at least one filtering device according to one of the preceding claims.

13. A private installation according to Claim 12, characterised in that the device is placed at the input of the narrow-band terminal on the network access or on the lead connecting the terminal to the network.

14. A private installation according to Claim 14, characterised in that the device is placed in the narrow-band terminal.